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ALLIED Amphenol Products

World Headquarters
4300 Commerce Court
Lisle, IL 60532
Telephone (312) 983-3500

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Allied Amphenol
SF/ Tech

May 26, 1987

Ms. Mary Dinkel
State of Illinois
Environmental Protection Agency
Hazardous Substance Control Section
Division of Land Pollution Control
2200 Churchill Road
Springfield, IL 62706

Dear Ms. Dinkel:

At the meeting held in your office on April 3, 1987, it was agreed that Amphenol Corporation would review the groundwater contour maps for the former Amphenol facility in Broadview, Illinois. Attached for your review and information are copies of the revised maps as prepared by our consultant IT Corporation.

It should be noted that IT does not believe that this reinterpretation of the data changes our perspective of the site groundwater flow. This is more fully explained in the attached for your review.

Sincerely yours,

AMPHENOL CORPORATION

B. N. Fleischer
Director,
Environmental Affairs

Attch.
BNF:dg

INTERNATIONAL
TECHNOLOGY
CORPORATION

May 20, 1987

Project No. 303030

Mr. Burton N. Fleischer
Director, Environmental Affairs
Amphenol Corporation
4300 Commerce Court
Lisle, IL 60532

Transmittal
Revised Ground Water Contour Maps
Former Allied Corporation Facility
Broadview, Illinois

Dear Mr. Fleischer:

Enclosed for your review are copies of revised ground water contour maps for the former Allied Corporation facility in Broadview, Illinois as prepared by IT Corporation (IT). New maps were prepared for the five dates for which we currently have ground water elevations data available. These five dates coincide with the initial site assessment and four subsequent quarters of site ground water monitoring activities. The major revision to these maps was our remapping of the site ground water contours on 0.1-foot contour intervals rather than the 0.5- and 1.0-foot intervals which had been previously presented. This revision was requested by the Illinois Environmental Protection Agency (IEPA) during our meeting with them last month.

Our first effort at revising these maps was done utilizing a microcomputer and Grapher software. Copies of the computer-generated contour plots for each of the five dates are included for your information and for comparison with the final figures we are presenting. Three problems associated with use of the Grapher software became apparent.

- For each map, only a few data points are available (less than ten). Therefore, each data point has a high significance and influences a large portion of the map area.

- The program "extrapolates" to give contour lines over the whole area. Consequently, the reliability of the contours diminishes as you get further from the actual data points.

- The program cannot take into account any potential influence from Addison Creek or the drainage ditch which runs west to east along the northern site boundary, largely due to a lack of specific data on these streams.

Nonetheless, the computer generated plots were successful in guiding us generally in the repositioning of certain contours and the density of 0.1-foot contours needed across the site. We have limited our addition of 0.1-foot contours largely to the plant area proper, as this is where the majority of data points (wells) exist. Adding additional contours to the east would only increase the line density and not provide any new information in an area where contours are already inferred.

In general, I do not believe this reinterpretation of the data changes our perspective of site ground water flow. The finer contours do make the presence of a slight ground water "mound" become known in the vicinity of MW-12. General flow directions across the site are still primarily from the west and southwest flowing toward the east and northeast. The map from June 5, 1985 is, in my opinion, still the most representative and most accurate ground water contour map, due primarily to the fact that well No. MW-14 was still in use at that time and provides an indication of the impact of the drainage ditch north of the site on ground water flow toward Addison Creek. This map (Figure 1) also gives indications of a ground water flow component from the north-northwest as revealed in the vicinity of well No. MW-15. Such a regional flow component could potentially influence ground water quality in the vicinity of MW-16S more than flow from the area of MW-12 or the remainder of the plant site.

The maps prepared from the data obtained during the quarterly monitoring program (Figure 2 through 5) do not have the benefit of having data available from MW-14 and are thus limited to an interpretation of ground water flow which places more emphasis on the "mound" at MW-12 and its gradient toward MW-15 and MW-16S. This is what we believe to be the most correct interpretation of the direction of ground water flow based on the available data. In hindsight, Figures 2 through 5 would have benefited from having a ground water elevation measurement available from well No. MW-14. In all five figures, however, questions still remain in the interpretation of ground water flow from the north and its impact on flow in the vicinity of wells Nos. MW-15 and MW-16S. However, as we previously discussed, to answer these types of questions becomes more of a regional issue and would involve installation of more offsite wells. Figure 1, which benefits from the largest number of monitoring wells, gives strong indications of a flow component from the north, which along with the influence of the drainage ditch, indicates flow from the north-northwest is influencing well No. MW-16S more than flow from the plant area to the southwest.

If necessary, it may be possible to again gain access to well No. MW-14 for water level elevation measurements. As you may recall, we were unable to relocate this well for grouting after completion of the initial site assessment. It had apparently been damaged and buried during the winter when the access road was scraped or graded. If it could be found again and its present elevation surveyed, it might provide data which could once again provide evidence of the influence of the drainage ditch on ground water gradients. I would not recommend sampling of this well, if found, due to its

probability of having been damaged. It might also be beneficial to have some limited surveying done of the bank and stream bed elevations along the drainage ditch and its confluence with Addison Creek in order to determine their elevations in relation to the observed ground water table.

I hope these revised maps and this narrative are beneficial and meet your needs and those of the IEPA. If you need additional information, please feel free to contact me.

Very truly yours,

Larry R. Sweeney

Larry R. Sweeney
Project Manager

LRS/pw
Enclosures

DRAWING NUMBER 303030-E1

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APPROVED BY

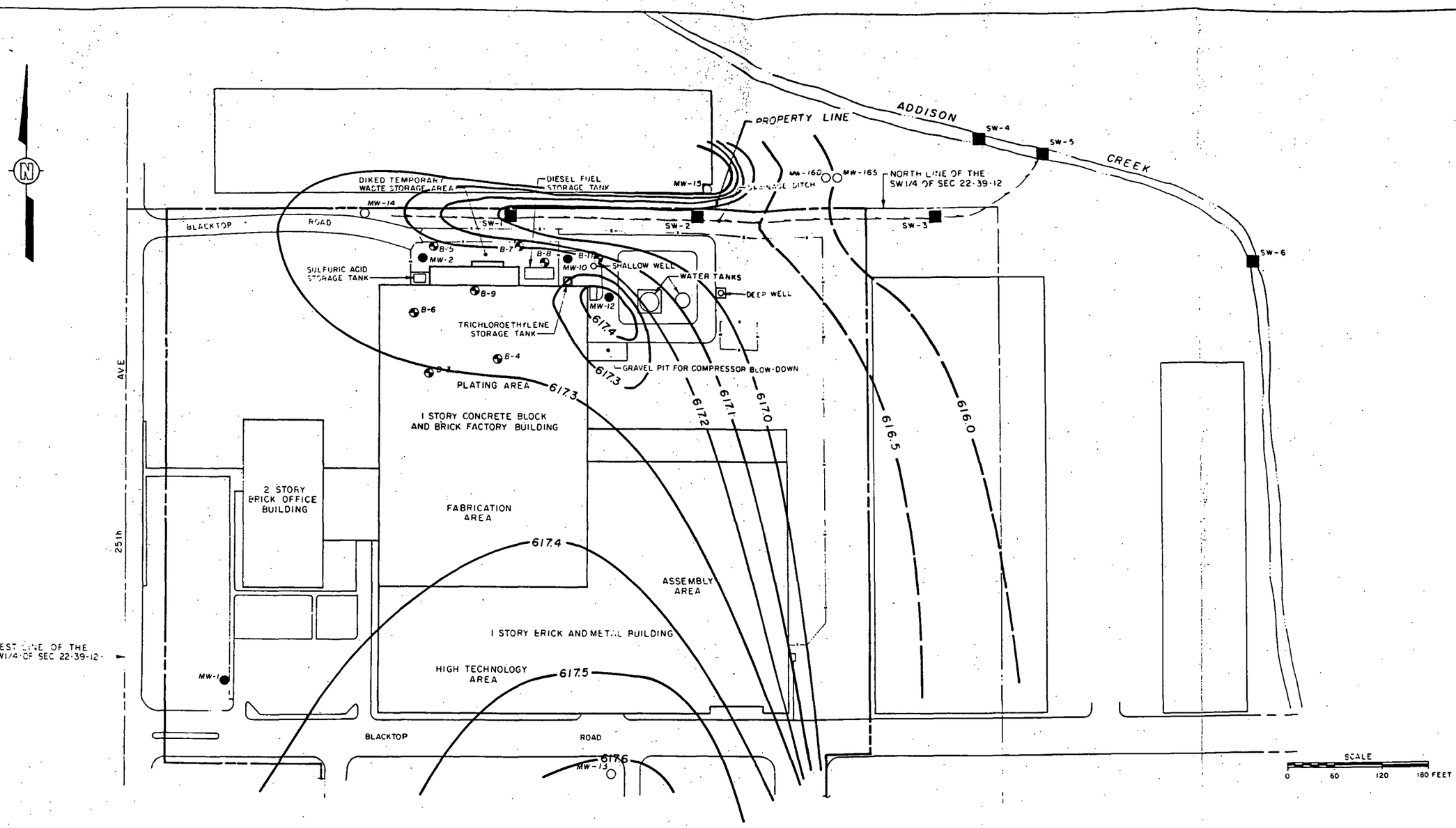

FIGURE 1

SITE GROUND WATER CONTOURS
BROADVIEW, ILLINOIS

PREPARED FOR

AMPHENOL PRODUCTS DIVISION
ALLIED CORPORATION
LISLE, ILLINOIS

NOTE:
WATER LEVEL MEASUREMENTS MADE ON JUNE 5, 1985

LEGEND

- PHASE I SOIL BORING
- PHASE I GROUND WATER MONITORING WELL
- PHASE II GROUND WATER MONITORING WELL
- PHASE II SURFACE WATER AND SEDIMENT SAMPLING LOCATION
- 617.3 GROUND WATER ELEVATION CONTOURS (FT. MSL) (DASHED WHERE INFERRED)

REFERENCES

1. SURVEY NO N-97372 SURVEY, BY NATIONAL SURVEY SERVICE, INC., DATED NOVEMBER 10, 1972, SCALE 1"= 60'
2. PLAT OF SURVEY OF PROPERTY LOCATED AT 2801 S. 25th AVENUE, BROADVIEW, ILL., BY MICHAEL J. EMMERT, REGISTERED ILLINOIS LAND SURVEYOR NO. 2499, DATED JANUARY 15, 1985, SCALE 1"= 30'

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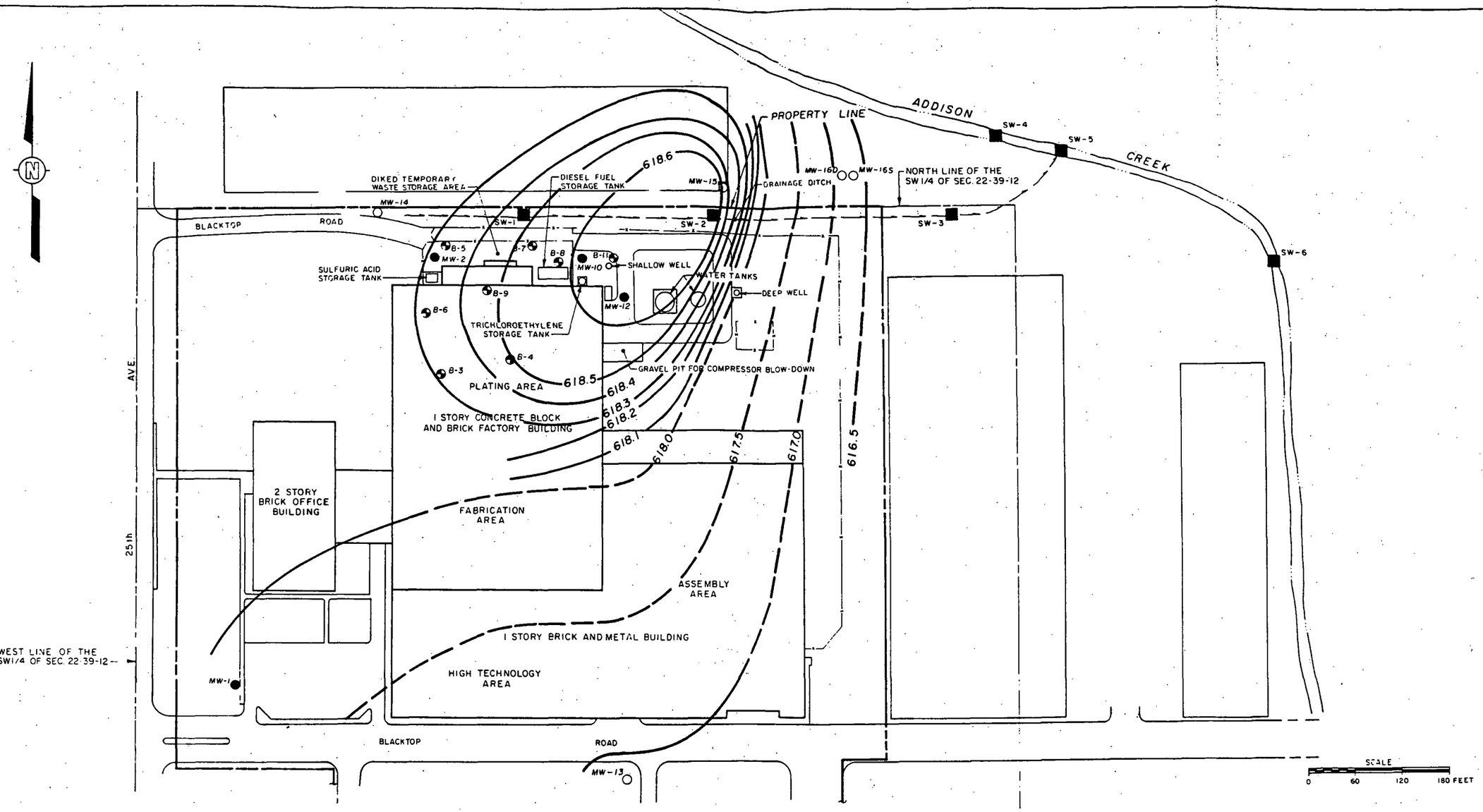

FIGURE 2

SITE GROUND WATER CONTOURS
BROADVIEW, ILLINOIS

PREPARED FOR

AMPHENOL PRODUCTS DIVISION
ALLIED CORPORATION
LISLE, ILLINOIS

NOTE:
WATER LEVEL MEASUREMENTS MADE DECEMBER 17, 1985.

LEGEND

- B-7 — PHASE I SOIL BORING
- MW-1 — PHASE I GROUND WATER MONITORING WELL
- MW-13 — PHASE II GROUND WATER MONITORING WELL
- SW-1 — PHASE II SURFACE WATER AND SEDIMENT SAMPLING LOCATION
- 6180 — GROUND WATER ELEVATION CONTOURS (FT. MSL) (DASHED WHERE INFERRED)

REFERENCES:

1 SURVEY NO N-97372 SURVEY, BY NATIONAL SURVEY SERVICE, INC., DATED NOVEMBER 10, 1972, SCALE 1"=60'

2 PLAT OF SURVEY OF PROPERTY LOCATED AT 2801 S. 25th AVENUE, BROADVIEW, ILL., BY MICHAEL J. EMMERT REGISTERED ILLINOIS LAND SURVEYOR-NO 2499, DATED JANUARY 15, 1985, SCALE 1"=30'

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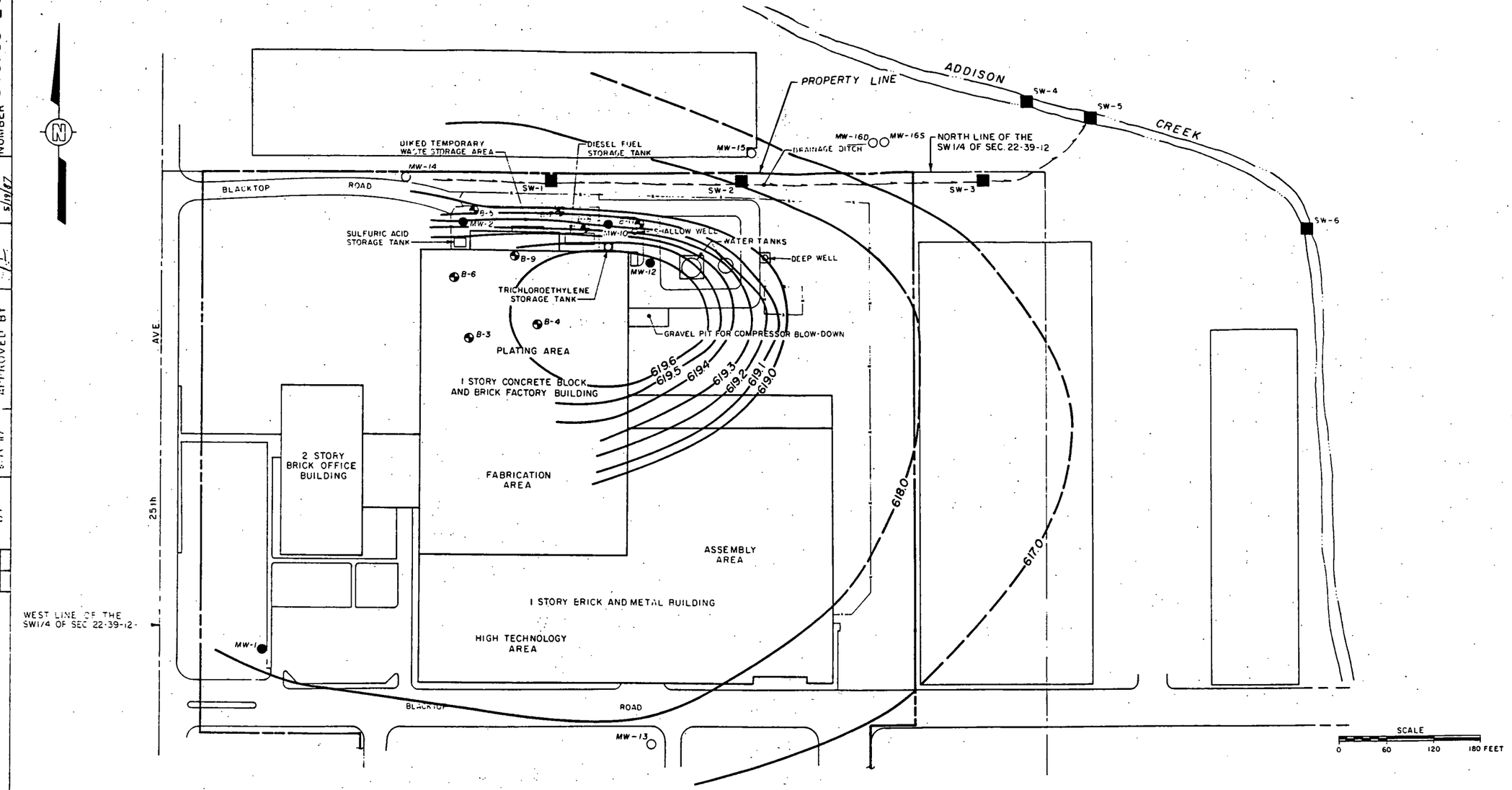

FIGURE 3

SITE GROUND WATER CONTOURS
BROADVIEW, ILLINOIS

PREPARED FOR

AMPHENOL PRODUCTS DIVISION
ALLIED CORPORATION
LISLE, ILLINOIS

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NOTE:
WATER LEVEL MEASUREMENTS MADE ON MARCH 25, 1986

LEGEND

- PHASE I SOIL BORING
- PHASE I GROUND WATER MONITORING WELL
- PHASE II GROUND WATER MONITORING WELL
- PHASE II SURFACE WATER AND SEDIMENT SAMPLING LOCATION
- GROUND WATER ELEVATION CONTOURS (FT MSL) (DASHED WHERE INFERRED)

REFERENCES

1. SURVEY NO N-47372 SURVEY, BY NATIONAL SURVEY SERVICE, INC., DATED NOVEMBER 10, 1972, SCALE 1"= 80'
2. PLAT OF SURVEY OF PROPERTY LOCATED AT 2801 S. 25th AVENUE, BROADVIEW, ILL., BY MICHAEL J. IMMLER, REGISTERED ILLINOIS LAND SURVEYOR NO. 2499, DATED JANUARY 15, 1985, SCALE 1"= 30'

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PROPERTY LINE
ADDISON CREEK
SW-4
SW-5
SW-6
MW-16D
MW-16S
NORTH LINE OF THE SW 1/4 OF SEC. 22-39-12
DRAINAGE DITCH
MW-15
DIKED TEMPORARY WASTE STORAGE AREA
DIESEL FUEL STORAGE TANK
MW-14
BLACKTOP ROAD
SW-1
SW-2
SW-3
B-5
B-7
B-8
B-10
MW-2
MW-10
SHALLOW WELL
WATER TANKS
DEEP WELL
SULFURIC ACID STORAGE TANK
B-9
B-6
MW-12
TRICHLOROETHYLENE STORAGE TANK
B-4
618.6
GRAVEL PIT FOR COMPRESSOR BLOW-DOWN
B-3
PLATING AREA
1 STORY CONCRETE BLOCK AND BRICK FACTORY BUILDING
618.5
618.4
2 STORY BRICK OFFICE BUILDING
FABRICATION AREA
618.3
618.2
ASSEMBLY AREA
618.1
1 STORY BRICK AND METAL BUILDING
618.0
617.0
616.0
HIGH TECHNOLOGY AREA
25th AVE
WEST LINE OF THE SW1/4 OF SEC 22-39-12
MW-1
BLACKTOP ROAD
MW-13
SCALE
0 60 120 180 FEET

NOTE:
WATER LEVEL MEASUREMENTS MADE ON JUNE 19, 1986.

LEGEND
- B-7 PHASE I SOIL BORING
- MW-1 PHASE I GROUND WATER MONITORING WELL
- MW-13 PHASE II GROUND WATER MONITORING WELL
- SW-1 PHASE II SURFACE WATER AND SEDIMENT SAMPLING LOCATION
- 618.0 GROUND WATER ELEVATION CONTOURS (FT. MSL) (DASHED WHERE INFERRED)

REFERENCES
SURVEY NO N-97372 SURVEY, BY NATIONAL SURVEY SERVICE, INC., DATED NOVEMBER 10, 1972, SCALE 1"=80'
PLAT OF SURVEY OF PROPERTY LOCATED AT 2801 S. 25th AVENUE, BROADVIEW, ILL., BY MICHAEL J. EMMERT, REGISTERED ILLINOIS LAND SURVEYOR NO 2499, DATED JANUARY 15, 1985, SCALE 1"=50'

FIGURE 4

SITE GROUND WATER CONTOURS
BROADVIEW, ILLINOIS

PREPARED FOR

AMPHENOL PRODUCTS DIVISION
ALLIED CORPORATION
LISLE, ILLINOIS

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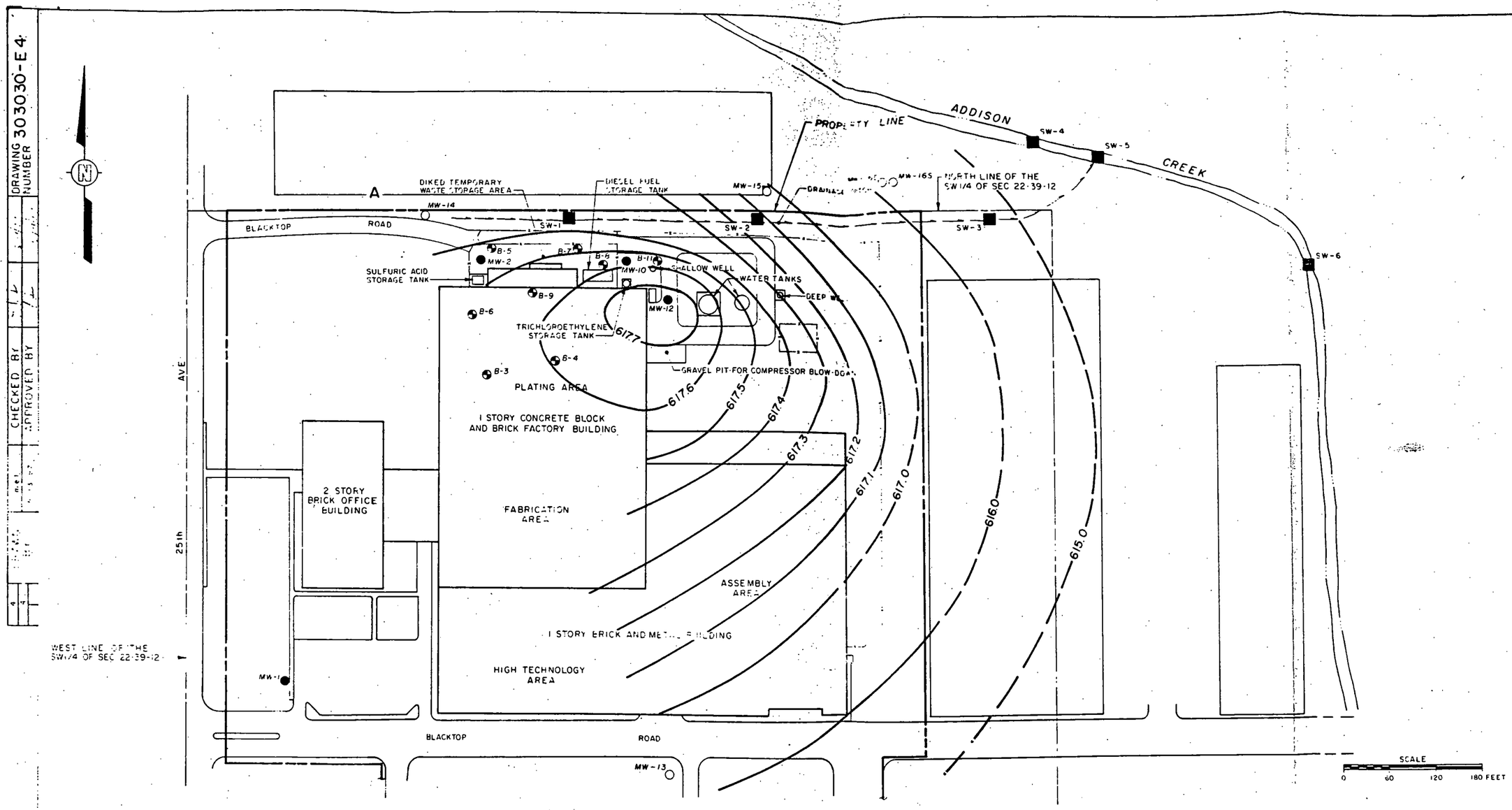

FIGURE 5

SITE GROUND WATER CONTOURS
BROADVIEW, ILLINOIS

PREPARED FOR

AMPHENOL PRODUCTS DIVISION
ALLIED CORPORATION
LISLE, ILLINOIS

NOTE:
WATER LEVEL MEASUREMENTS MADE ON SEPTEMBER 18, 1986

LEGEND
- PHASE I SOIL BORING
- PHASE I GROUND WATER MONITORING WELL
- PHASE II GROUND WATER MONITORING WELL
- PHASE II SURFACE WATER AND SEDIMENT SAMPLING LOCATION
- GROUND WATER ELEVATION CONTOURS (FT MSL) (DASHED WHERE INFERRED)

REFERENCES
1. SURVEY NO. [illegible] SURVEY, BY NATIONAL SURVEY SERVICE, INC., DATED NOVEMBER 10, 1972, SCALE 1"=60'.
2. PLAT OF SURVEY OF PROPERTY LOCATED AT 2801 S. 25th AVENUE, BROADVIEW, ILL., BY MICHAEL J. EMMERT, REGISTERED ILLINOIS LAND SURVEYOR NO. 2499, DATED JANUARY 15, 1985, SCALE 1"=30'.

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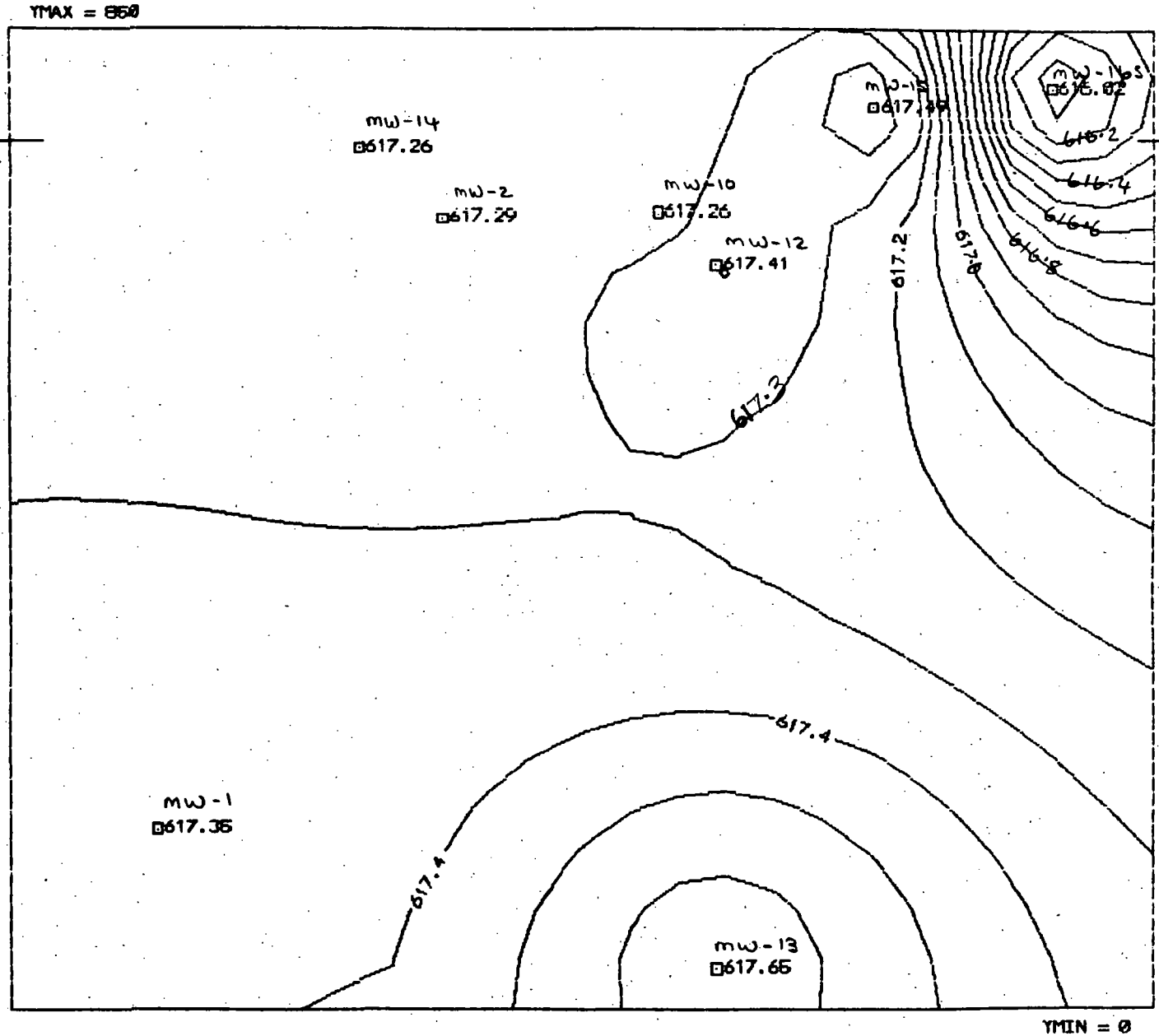

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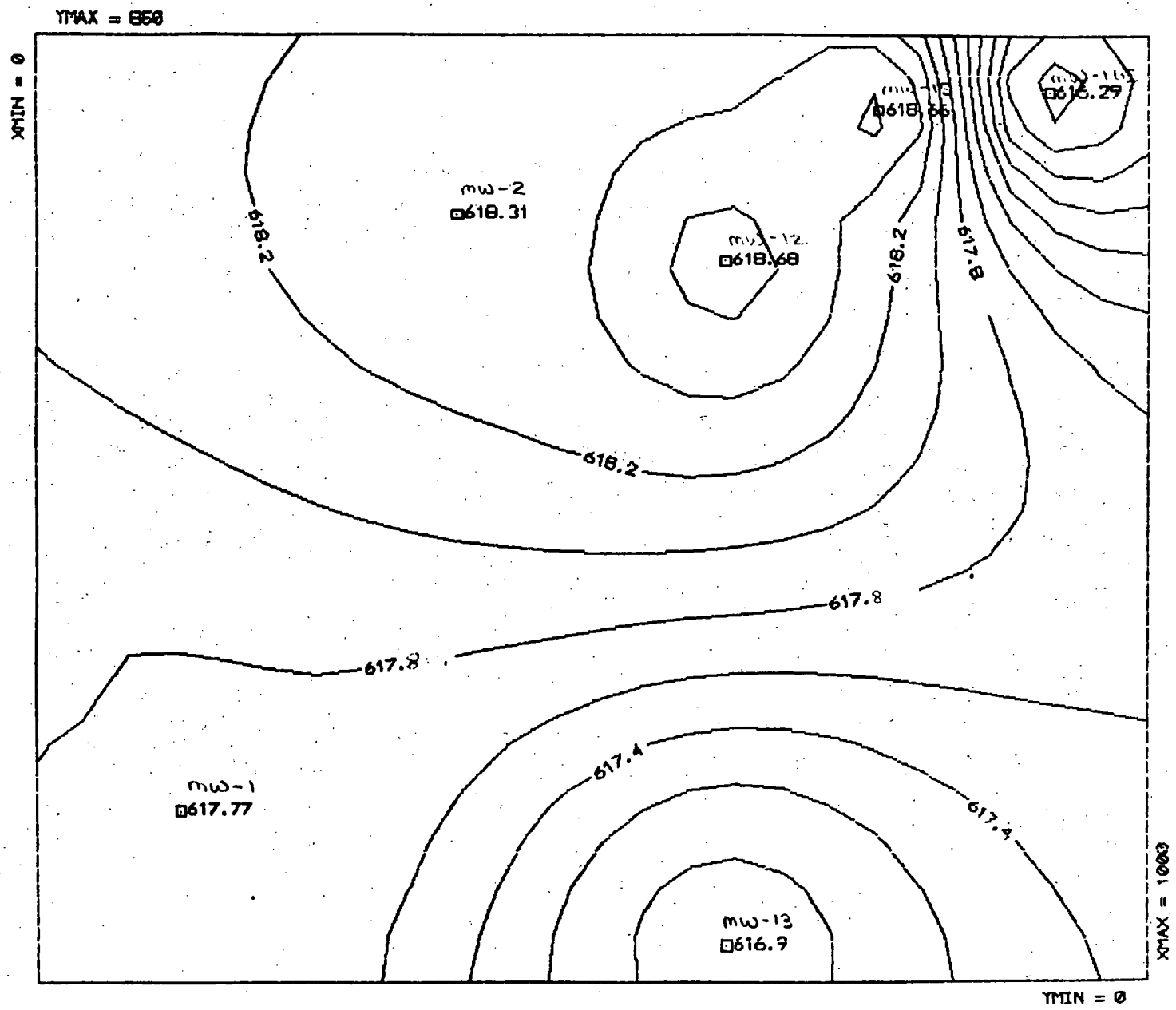

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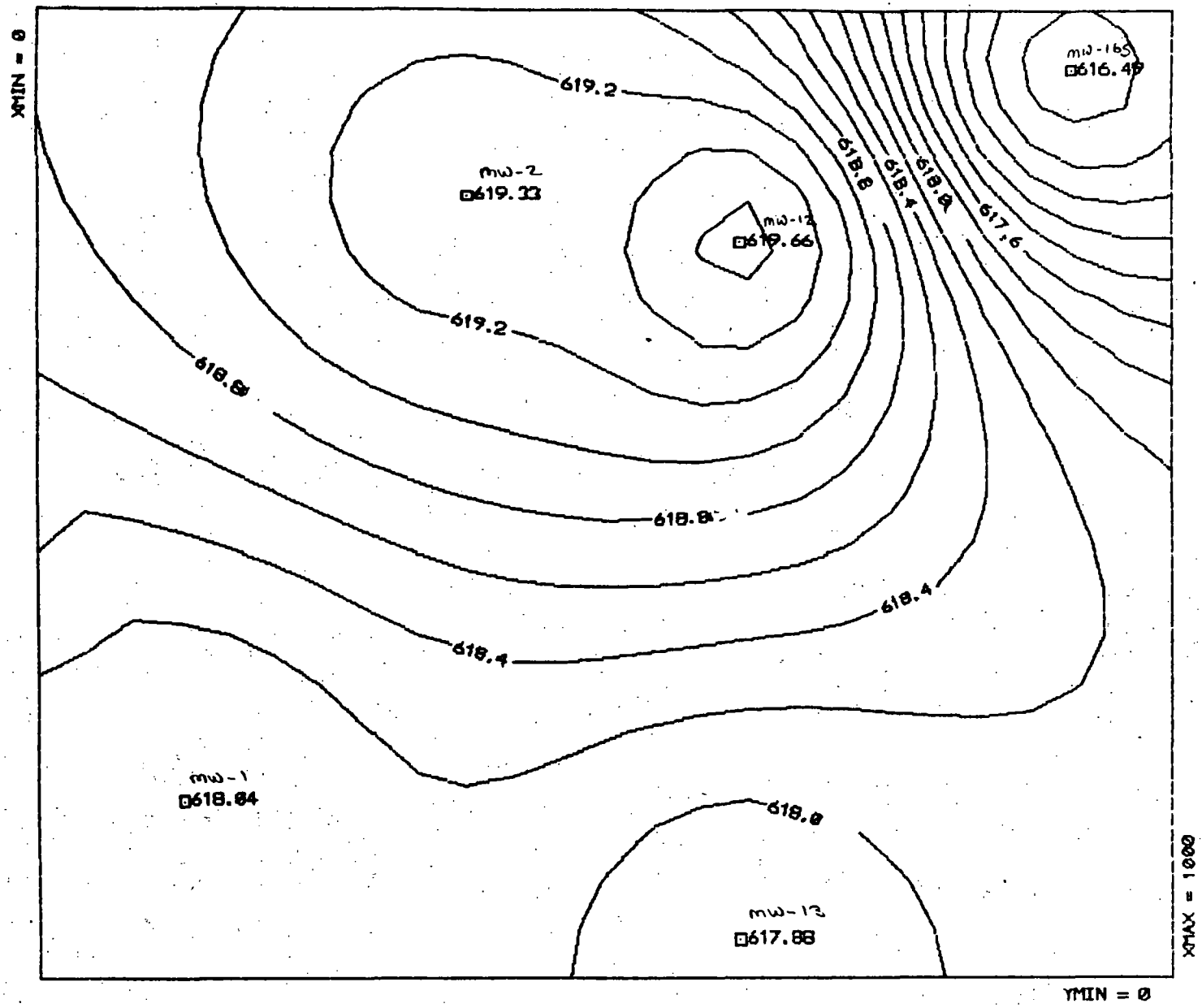

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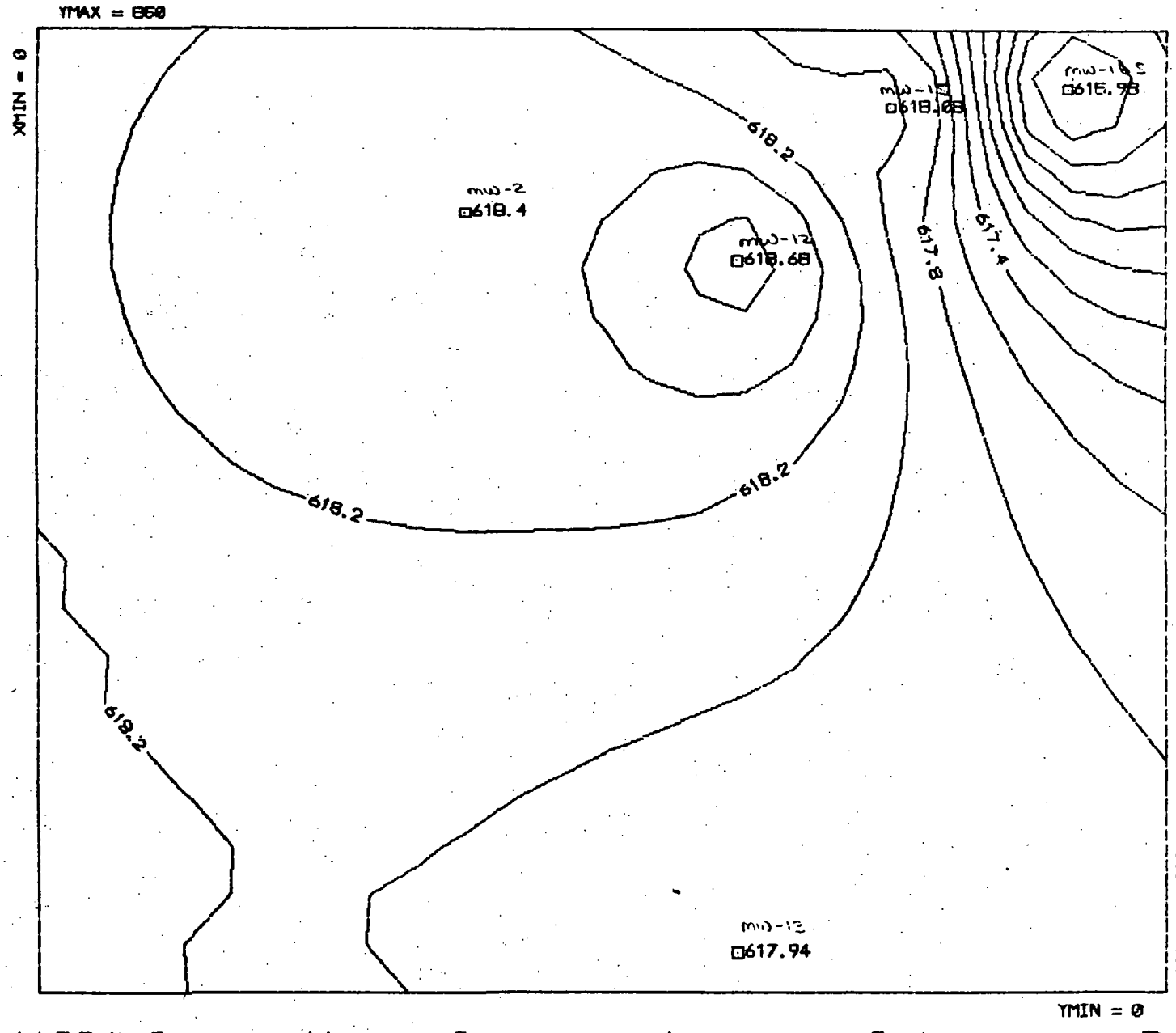

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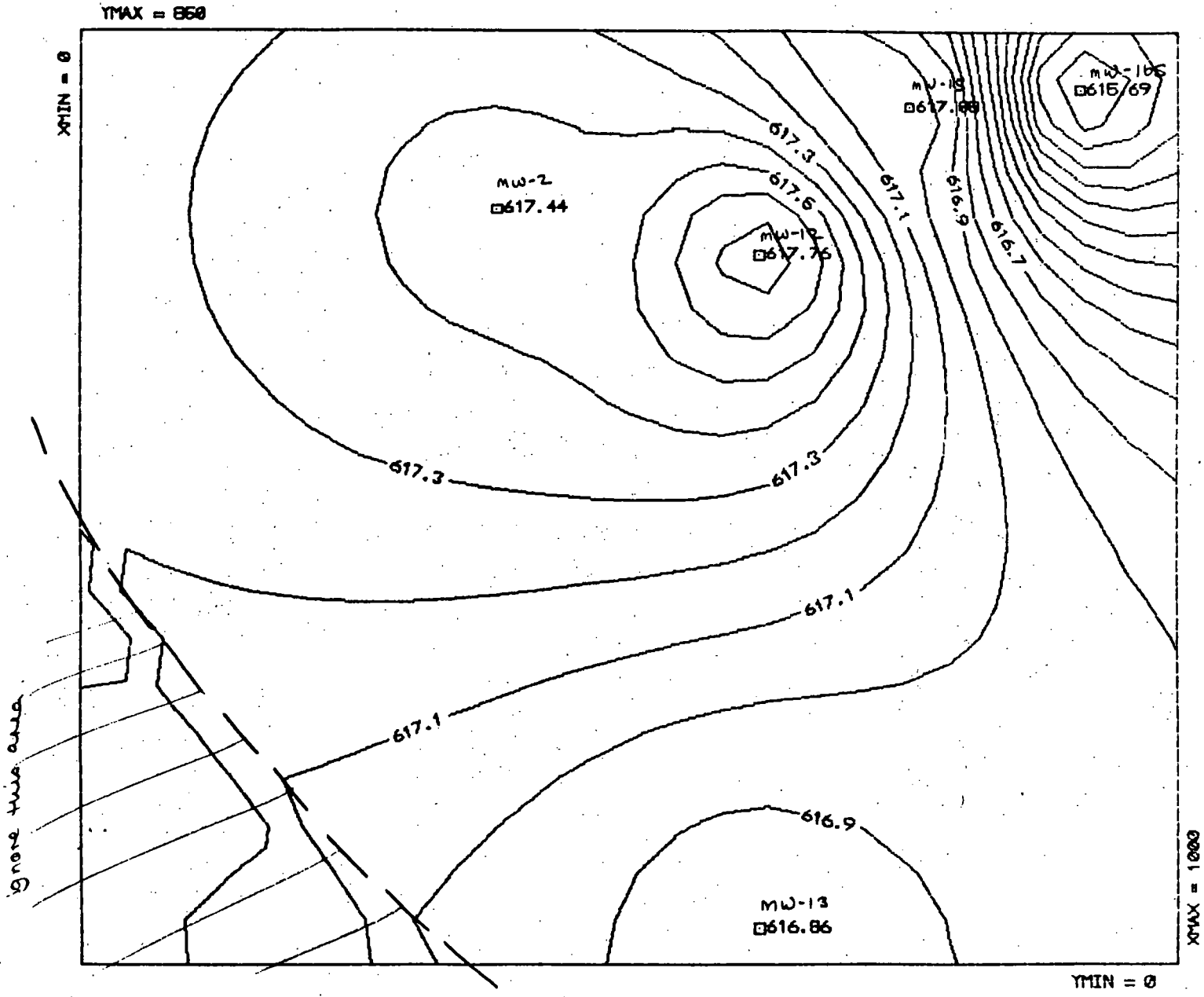

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BKP 4/30/27

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